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PAPERS

IN

MANUFACTURES.

STRETCH FOR WOOLLEN WEAVERS.

TEN GUINEAS were this Session presented to the Widow of the late S. BRIERLY, for his STRETCH FOR WOOLLEN WEAVERS, a model of which is preserved in the Society's Repository, and the following communications were received on the subject.

SIR;

Rochdale, November 11, 1816.

HAVING seen your name attached to the Society for the Encouragement of Arts, Manufactures, and Commerce, as secretary to the Institution, and conceiving that you are the proper channel through which any communi-

cation ought to be made, or any question to be asked, I beg leave to trouble you with a line of inquiry on a subject upon which I feel particularly interested.

A poor widow woman in this neighbourhood, who is in very humble circumstances, called upon me a short time ago, and inquired whether there did not exist in London a society which embraced the objects set forth in the designation of that Society to which you are attached: her

reason for making this inquiry was this: that her late husband, though merely a common weaver, or mechanic, had invented a machine much in use amongst the Woollen Weavers of this district. Previous to this invention, the Woollen Manufacturer, after sizing the warp, was obliged to extend it on some ill-contrived stretch in the open air to dry, and generally on the road side, or in some very inconvenient place, and unless a person were appointed to watch and guard it, boisterous winds, and the grazing cattle made them too often repent their negligence; and not unfrequently the warp was much injured or destroyed. The inconvenience of such an operation was severely felt, particularly in the Winter season, when families thus employed, were obliged to stop their work until the return of a dry day. The invention consists of a frame constructed in such a manner with moveable rollers, that the warp may be stretched and prepared for the loom in onetenth of the time which the former operation required, and may be safely dried by the weaver's fire-side.

Without being myself much of a judge of matters of this sort, I can undertake to assert, from my own knowledge, that this invention does contribute very essentially to the comfort of the Weaver, as well as to the celerity and dispatch of his employment. Since the above application, I have made it my business to inquire into the truth of these premises, and can undertake to say, that, on all hands, the utility of this invention is acknowledged, and that I have met with many persons engaged in the trade, who ascribe the invention to Samuel Brierly, the deceased husband of this poor woman, and who would sign a deposition to that effect.

I have been induced to make these inquiries that I might not trespass on your valuable time, on uncertain grounds. The circumstances of this poor woman are such, that if your Society is of opinion with me, that

whatever promotes the simple operations of any manufacture tends to the welfare of the manufacture itself, and that this invention by so doing, is of sufficient importance to merit their attention, any reward or gratuity which they might think proper to give to her as the representative of the inventor, would be well bestowed; and might operate as a useful incentive to exertions which might in a similar manner promote the welfare of so important a branch of our commercial enterprizes.

I am, Sir,

C. Taylor, M. D.

&c. &c. &c.

Secretary, &c.

Joshua Thomas Horton.

Rochdale, May 29, 1817.

SIR:

I HAVE to thank you for your obliging attention to my former letter, and to the request which it contained. In compliance with the desire of the Committee of Manufactures, I have procured two drawings of the machine. They are not very good, as we have no good professional drawer (if I may so express myself) in this place. They may perhaps suffice to give an idea of the instrument; if not, I will endeavour to procure a better description elsewhere.

I enclose a certificate of those points on which the Committee insisted. I have procured the signatures of twenty-two of the oldest weavers in the county, and thought it unnecessary to obtain more; but I beg leave to add, that if it could be of any use, I might obtain signatures to almost any extent. Of my own knowledge I can assert, that the invention has been of inestimable service to the trade, and a general convenience to the whole country. The dimensions of the Stretch are such

as to admit of its being used in-doors if the weather is bad. Before this invention took place, the public roads, and the fields were completely infested with persons drying their warps, to the serious inconvenience of travellers, and to the great injury of farmers. It is a fact generally admitted, that the increase of building in this town, the inhabitants of which are principally weavers, is mainly attributable to this invention, inasmuch as prior to its taking place, the occupation of weaving was quite incompatible with residence in a town.

In conclusion I can only again commend this case to the attention of your committee; begging leave to add of my own knowledge, that any reward which they may think proper to award to the widow of Samuel Brierly the inventor, will be of inestimable service to her, and I humbly conceive of some considerable benefit to society, as an incentive to future discoveries and improvements. The second Stretch which was made, is still in existence, and is kept as a curiosity by Abraham Healey, whose name appears first on the enclosed list.

I am, Sir,

A. Aikin, Esq. Secretary, &c. &c. &c. &c.

JOSHUA THOMAS HORTON.

CERTIFICATE.

Rochdale, April 28, 1817.

WE, the undersigned, woollen weavers in the Parish of Rochdale, hereby declare and certify, that the late Samuel Brierly was the sole inventor of the drying frame called a Stretch, about the year one thousand seven hundred and ninety seven; that the machine is in actual, general, and almost universal use, and is approved by the

woollen weavers in the vicinity: that the cost of the machine is about two pounds, and that from the period of its invention to the present day, it has been daily advancing to general adoption, with very material benefit to the trade, and to the great advantage and comfort of weavers; who, prior to this invention were exposed to every vicissitude of weather, and were dependent on the good nature of those farmers who would allow them an entrance into their fields: we further declare and certify that material injury resulted to the warp from the want of such an invention, both by the depredations of cattle, and by other inconveniences attached to its exposure in public situations.

(Signed)

ABRAHAM HEALEY, WILLIAM WHITEHEAD, JOHN WHITEHEAD, JOHN FITTON. JOSEPH HILL, NATHAN HOLT, JOHN BUTTERWORTH, GEORGE ASHWORTH. ROBERT ASHWORTH. GEORGE HARLEY, RICHARD HARTLEY, JOSEPH LAYCOCK, JAMES BRIERLEY, JAMES WRENSHAW, WILLIAM SCHOFIELD, SAMUEL HEALEY, JOHN CRABTREE, JAMES WILD, ROBERT CHADWICK, ROBERT COLLINGE, JAMES HOWORTH.

Reference to the Engraving of Mr. Samuel Brierly's Stretch.

Plate IV, fig. 5, a side view, showing the Warp stretched on the rollers in a zigzag direction, from bottom to top; *i i i i*, four handles to carry it by.

Fig. 6, an end view showing the rollers: they go into holes in the right post as k k k, fig. 7, and drop into grooves in the left post as l l l l, figs. 6 and 8.

Scale one inch to a yard.